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10/544,262

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EXAMINER

FRIEDHOFER, MICHAEL A

ART UNIT

PAPER NUMBER

2832

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--|--------------------------------------|--|
| Office Action Summary | Application No. 10/544,262 | Applicant(s) RAKERS ET AL. | |
| | Examiner Michael A. Friedhofer | Art Unit 2832 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 41-86 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 41-86 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/3/05 & 12/7/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 41-49, 55-59, and 67-76 are rejected under 35 U.S.C. 102(b) as being anticipated by Filion et al ('630).

Filion et al discloses in the figures an interior fitting for a vehicle comprising a support body 22; a sensor-functional structure 30 coupled to the support body; and a covering layer 16 coupled to the support body on a side facing the vehicle interior; wherein different output signals may be generated by the sensor-functional structure as a function of the location of action thereupon; wherein the covering layer is of flexible design and completely covers the sensor-functional structure. The sensor-functional structure is pressure-sensitive sensors. The covering layer comprises one of a textile, a woven fabric, a leather, an artificial leather, or a film. As seen in figure 2, the covering layer may be arranged directly on the sensor-functional structure and a compressible intermediate layer 24 is arranged between the support body and the sensor-functional structure. As seen in figure 5, the compressible intermediate layer may be arranged between the covering layer and the sensor-functional structure. The compressible intermediate layer comprises foam. Both indicia and raised/lowered areas are

formed in the covering layer for providing a visual orientation facing the interior.

The raised/lowered areas form the semi-stiff molded component/recesses in the covering material. An adjustment of a vehicle component which is to be operated is associated with the pressure which is exerted on the sensor-functional planar structure. Continuous adjustment of a vehicle component occurs when a continuous change in pressure occurs in the sensors. Various methods of production are indicated including the lamination the support body, sensor-functional structure onto the support body; and then laminating the cover layer onto the sensor-functional planar structure. The sensor structure may be formed with the covering layer and then laminated to the support body. The foam is molded into place and can be done in any of the earlier indicated methods meaning that the covering layer and the sensor structure are provided and then the foam is molded to them. The covering layer designates an operating panel having a central region and a plurality of peripheral regions arranged around the central region. As can be seen in figures 4a-4c, the tactile orientation comprises changeable structures so that operation of the sensor-functional structure can be reconfigured. As for the force-transmitting pieces being located in the compressible intermediate layer, the tactile orientation being indicated by different surface temperatures, and the negative pressure application on the side facing the interior during the method of production, these are a matter of engineering design choice not affecting the purpose, function or general structure of the switch providing a streamlined design preventing access of debris and

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liquid from damaging the sensor structure, such that, any well known tactile indication, method of production may be utilized while placement of force-transmitting pieces between the cover and the sensors is well known for providing force concentration so that less pressure is required to operate the sensor reducing user strain.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 50-52, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Filion et al ('630) in view of Caldwell.

Filion et al discloses all of the claimed limitations with the exception of the visual orientation being provided by an illuminating device.

Caldwell teaches a control panel in which touch sensors are utilized to operate a device and either OLEDs, PLEDs, or an electroluminescent film are utilized to indicated location of switch or switch activation and the touch sensor forms an optical waveguide by allowing the light transmitted from the light devices to the exterior of the devices.

It would have been obvious to one of ordinary skill in the art to apply the teachings of Caldwell to Filion et al to utilize OLEDs, PLEDs, or EL films to illuminate the various sensors because this is for the purpose of providing

indication of location when in a darkened environment, such as, night driving for easily locating the proper sensor or combination of sensors for operating a desired device in which using these lighting devices provide a thin structure and a less expensive method of illumination than some other devices.

5. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Filion et al ('630) in view of Jaeger.

Filion et al discloses all of the claimed limitations with the exception of the visual orientation comprises images projected onto the covering layer.

Jaeger teaches the use of changeable images on switches for visual orientation and to indicate changes in the function of the switch.

It would have been obvious to one of ordinary skill in the art to apply the teachings of Jaeger to Filion et al to provide visual indication formed by projected images onto the covering layer because this is for reducing the size of the interior fitting since less sensors or a smaller dimensioned sensor may be utilized while still providing all the desired functions since the functions can be selected and the desired functions can be clearly indicated.

6. Claims 60-65 and 77-86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Filion et al ('630) in view of Onodera.

Filion et al discloses all of the limitations with the exception of the arrangement of the operation regions, and the modes of operation.

Onodera teaches in the figures an interior fitting including an operating mechanism 12/13 forming a central region around which peripheral regions 1a-1f

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are located and form pushbuttons. The central region is round. Display device 4 provides information based as a function of an operating mode. Different vehicle components can be operated by the operating panel as a function of the operating mode. The operating mode is changed as a function of the actuation of the peripheral regions of the operating panel. The operating modes are assigned the operation of vehicle components, wherein the components comprise one of air conditioning, ventilation, car radio, navigation device, telephone, audio configuration system, fuel information system, and/or mobility information system. When the operating mode is set, the operation of the vehicle component assigned to the set operating mode takes place as a function of the actuation of the central region of the operating panel. The information of the display is determined by actuation of the central region and/or peripheral regions. When used for the audio system, actuation of the central region enables a configuration of the audio configuration system to be changed.

It would have been obvious to one of ordinary skill in the art to apply the teachings of Onodera to Filion et al to configure the sensors with a round central region with peripheral regions surrounding it for operating a variety devices and changing the function of the sensors based upon the device selected and displaying the device and functions because this is for the purpose of centralizing the switches of an automobile to one location in an ergonomic manner for ease of operation while maintaining a minimum of structure for providing a large variety of functions. As for the specific functions to be selected and by which

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region, this is a matter of engineering design choice not affecting the structure or operation of the control panel and is simply a matter of programming the control panel for the various functions.

7. Claim 66 is rejected under 35 U.S.C. 103(a) as being unpatentable over Filion et al ('630) in view of Rantet.

Filion et al discloses all of the claimed limitations with the exception of the continuous adjustment of the vehicle components to be operated is associated with the direction and/or speed of a continuous displacement of the location of action on the sensor-functional structure.

Rantet discloses an interior fitting including control sensors 8 for operating a vehicle component in which continuous adjustment of the component is associated with the direction and/or speed of a continuous displacement of the location of action on the sensor-functional structure.

It would have been obvious to one of ordinary skill in the art to form the sensors such that adjustment of the functions of the device is determined based on the direction and/or speed of the location of action on the sensor structure because this is for the purpose of providing additional means of determining the action being performed.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Filion et al ('028), Bontrager et al, Gremm et al, Morrision et al Cowelchuk et al, and Stoschek all teach various methods of forming control panels

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within automobiles for operating a plurality of devices and performing a number of functions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Friedhofer whose telephone number is 571-272-1992. The examiner can normally be reached on Mon-Fri 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael A. Friedhofer
Primary Examiner
Art Unit 2832

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